

Emphasizing Your Point with Charts with Excel 97

What you will learn from this lesson

With Excel 97 you will:

- Create charts with worksheet data.
- Modify standard graphs.
- Create and insert WordArt into your worksheet.
- Create do-it-yourself (DIY) charts.
- Insert maps into your worksheets.
- Use pie charts with your data.

What you should do before you start this lesson

Beginning the lesson on charts

1. Start Excel 97.
2. Open the Excel 97 file named Technology, which you created in an earlier lesson.

Exploring the lesson

Throughout this lesson you will be creating charts using the exceptionally quick and easy graphing capabilities of Excel 97. With the built-in Chart Wizard you can look at data and change the layout, type, and formats to fit your purpose.

Starting the Chart Wizard

The Chart Wizard shows each step along the path from entering raw data to completing a professional-looking graph. You can transform numbers into graphs, illustrating the power of visually oriented information to strengthen presentations.

Note

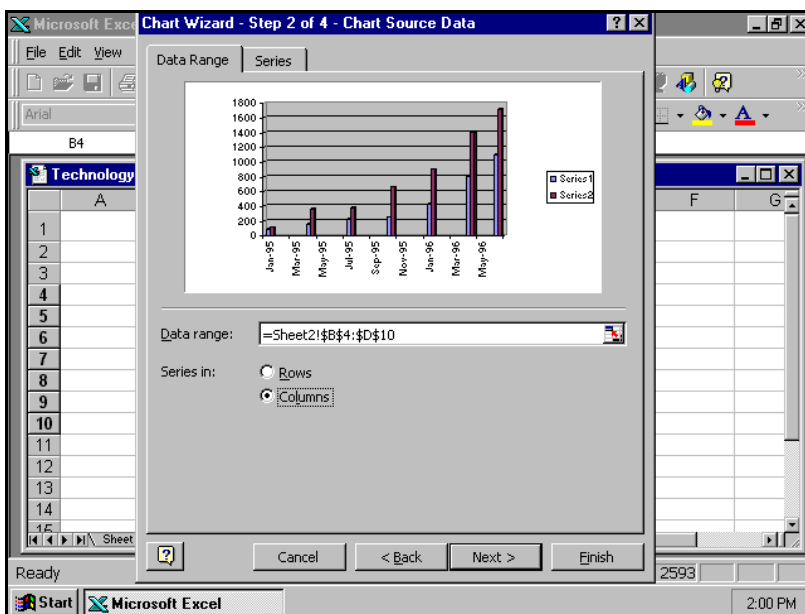
Verify your data range after you select your chart.

Using the Chart Wizard to get started

1. Select all of the data in the Technology worksheet, including the headings, but not the main title or totals.
2. On the Standard toolbar, click the **Chart Wizard** button.



3. On the **Standard Types** tab, in **Chart type**, click **Column**.
4. In **Chart sub-type**, click **Clustered column with a 3-D visual effect**.
5. Click the **Press and hold to view sample** button to see a sample of your data in the clustered column 3-D format.
6. Click **Next** twice.



Adding titles

A graph title identifies what the graph presents and explains the data.

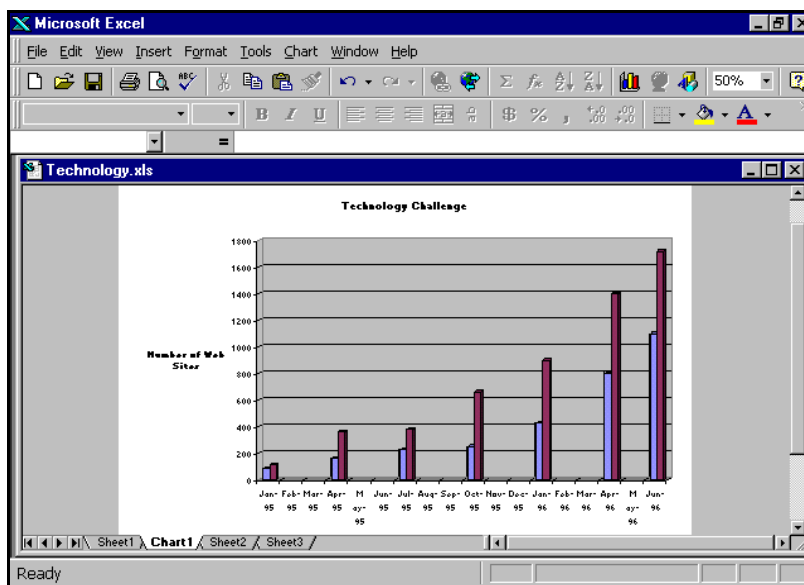
Adding titles

1. With the Technology workbook open, on the **Title** tab, in **Chart title**, type *Technology Challenge*.
2. In the **Value (Z) axis**, type *Number of Web Sites*. (The Z-axis title is available but not the Y-axis, because the Y-axis extends back into the chart.)
3. Click the **Gridlines** tab to select type of lines to show on your graph.

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4. In **Category (X) axis**, check **Major gridlines**, and click again to remove.
5. To see how the graph could look, in **Value (Z) axis**, check **Major gridlines**.
6. To move the legend to the bottom, click **Bottom** on the **Legend** tab.
7. On the **Data Labels** tab, click **Show value**, **Show label**, and then **None**.
8. On the **Data Table** tab, click the **Show data table** option to see a table, and click again to remove the table.
9. Click **Next** for **Chart Location**.
10. Click **As new sheet**.
11. Click **Finish** to complete the chart process.

Attaching the graph as a new sheet makes it easier to print a chart. You now have a readable and easy-to-understand chart. Attaching the chart as an object has the advantage of providing an immediate view of changes to the chart as you change the data.



Rotating Z-axis titles and enlarging chart titles

The Z-axis title might look cleaner if it were rotated. The main graph title would be easier to read if it were a larger font size. You can change them both.

Rotating Z-axis titles and enlarging chart titles

1. In the chart from the previous lesson, click the chart title.
2. On the Formatting toolbar, change the font size to 18.
3. Click the title, and position the pointer on the bottom line of the title, and move the title to the top center of the chart.

4. Right-click **Number of Web Sites**.
5. Click the **Format axis title** dialog box.
6. On the **Alignment** tab, click the **Red Diamond** text line, and drag it up to the top of the semicircle.
7. Click the **Font** tab, and change the text to bold and 14-point.
8. Click **OK**.
9. Right-click the "Technology Challenge" chart title.
10. Click **Format Chart**.
11. Click the **Font** tab, and change the text to bold and 20-point.
12. Click **OK**.

Adding texture to your background

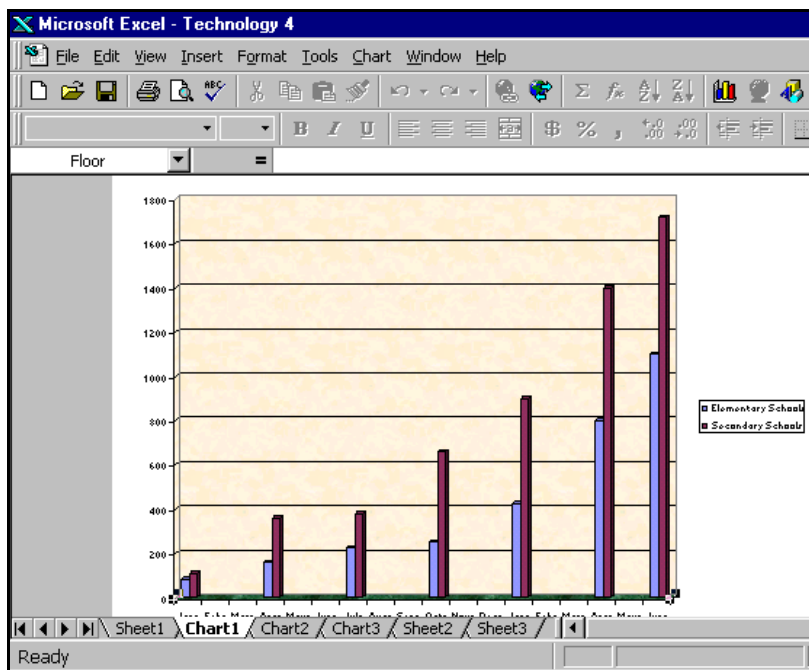
The plain, gray background can be changed to a colorful texture. If you have a color printer, a textured background will emphasize your chart.

Adding texture to your background

1. In the chart from the previous lesson, on the graph background, right-click **Walls**.
2. Click **Format Walls**.
3. On the **Patterns** tab, click **Fill Effects**.
4. On the **Texture** tab, click the **Parchment** color block in the third column of the first row.
5. Click **OK** to close the **Fill Effects** window.
6. Click **OK** to close the **Patterns** tab.
7. On the graph background, right-click **Floor**.
8. Click **Format Floor**.
9. On the **Patterns** tab, click **Fill Effects**.
10. On the **Texture** tab, click the **Green marble** color block in the first column of the third row.
11. Click **OK** to close the **Fill Effects** window.
12. Click **OK** to close the **Patterns** tab.
13. On the **File** menu, click **Save**.

Note

If the floor of the chart is too small to find, click the **Zoom** button, and select **75%**.

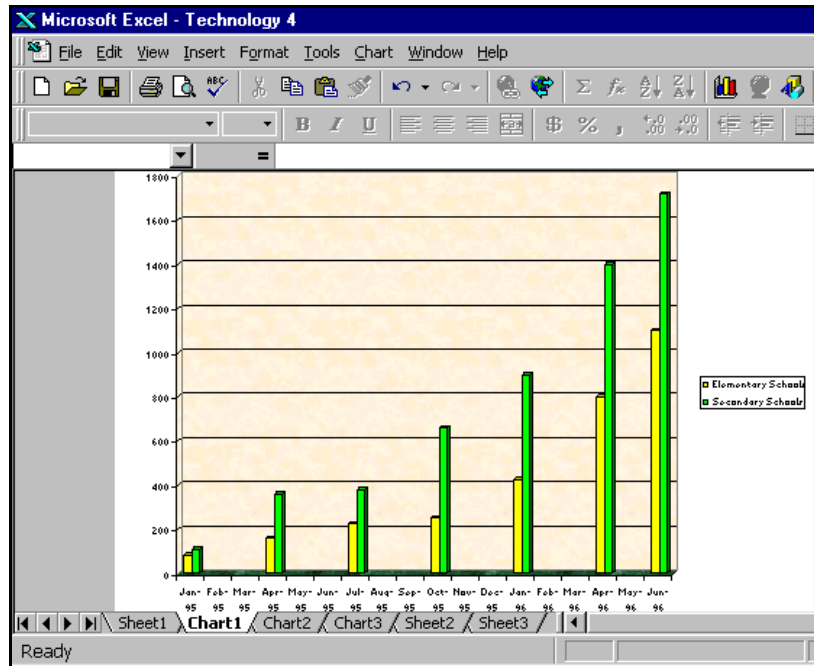


Changing colors of data bars

It is easy to change data bar colors to enhance your chart.

Adding colors to enhance data bars

1. Right-click the first data bar.
2. Click **Format Data Series**.
3. On the **Patterns** tab, click **Bright yellow** in the fourth row.
4. Click **OK**.
5. Right-click the second data bar.
6. Repeat steps 1 through 4, and click **Bright green** in the fourth row.



Rotating charts

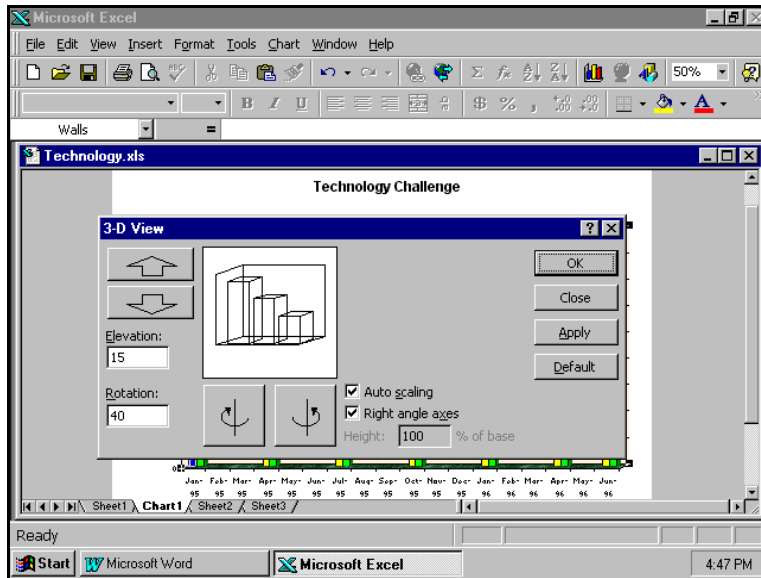
Sometimes it is easier to understand a chart if it is viewed in 3-D. Using Excel 97 you can modify your chart to show it from any view—top, bottom, right, left—or you can create 3-D charts.

Rotating charts

1. Right-click **Walls**.
2. Click **3-D View**.
3. In the **Elevation** dialog box, type *15*.
4. In the **Rotation** dialog box, type *40*.
5. Click the **Auto scaling** and the **Right angle axes** boxes.
6. Click **Apply**.
7. Click **OK**.

Note

If your image gets blurry, return to the 3-D dialog box and click **Default**. Excel 97 will return the chart to the “normal” 3-D settings.

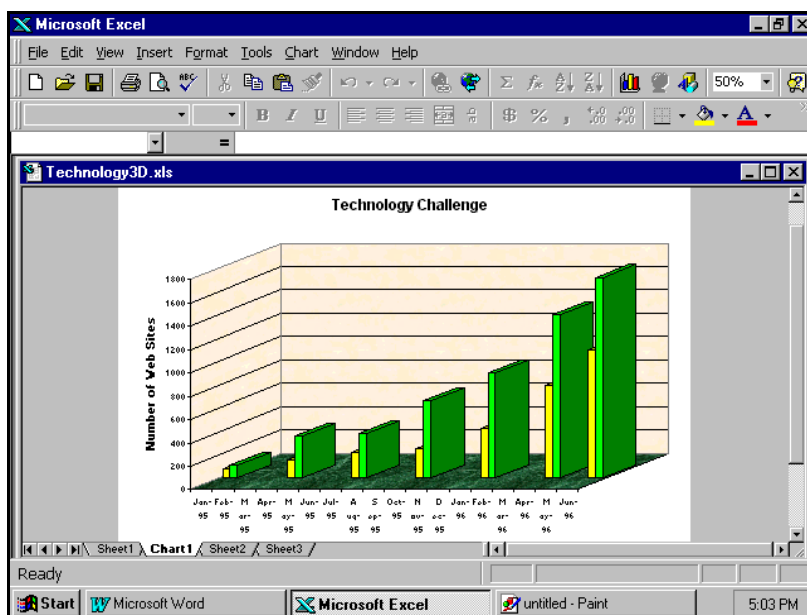


Adding depth to charts

The illusion of depth adds dimension to your chart. Using Excel 97 you can easily modify your charts to show depth.

Adding depth to your chart

1. Click the second bar on your chart.
2. Press CTRL+1 to open the **Format Data Series** window.
3. Click the **Options** tab.
4. In the **Gap depth** dialog box, type 170.
5. In the **Gap width** dialog box, type 90.
6. In the **Chart depth** dialog box, type 699.
7. Click **OK**.



As you view your graph now, determine its effectiveness in illustrating your data. Look at the colors, elements, angles, and text. Consider how students will view the graph in terms of color or black-and-white. You can easily change any part of the graph to improve your presentation.

Adding charts to the workbook

Sometimes it is sufficient and appropriate to add graphics to your charts. Excel 97 has an extensive library of clip art for your use. If you have the installation CD-ROM available, you can use the clip art on it for this exercise.

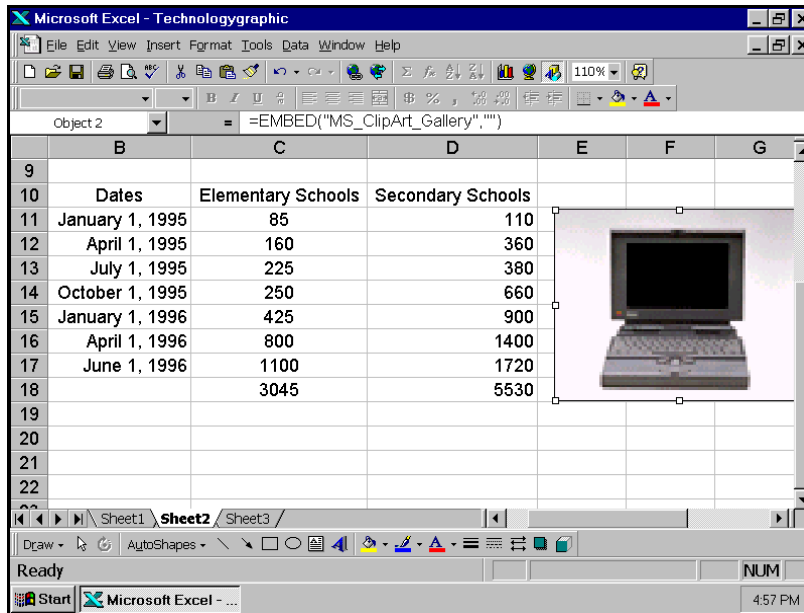
Adding worksheet graphics from Clip Art

1. Click cell F4 in your Technology workbook.
2. On the **Insert** menu, click **Picture**, and then click **Clip Art**.
3. On the **Clip Art** tab, click **Science & Technology**.
4. On the **Images** tab, click on an image of a laptop computer.
5. Click **Insert**.
6. Click the corner square and drag with the diagonal double arrow to enlarge the picture.
7. Click **OK**.
8. Save the chart with the file name *Technology Graphic*.

Note

To identify a chart by file name, click **Magnify**, and the image will enlarge with the file name. Or click **Properties** to see the file name.

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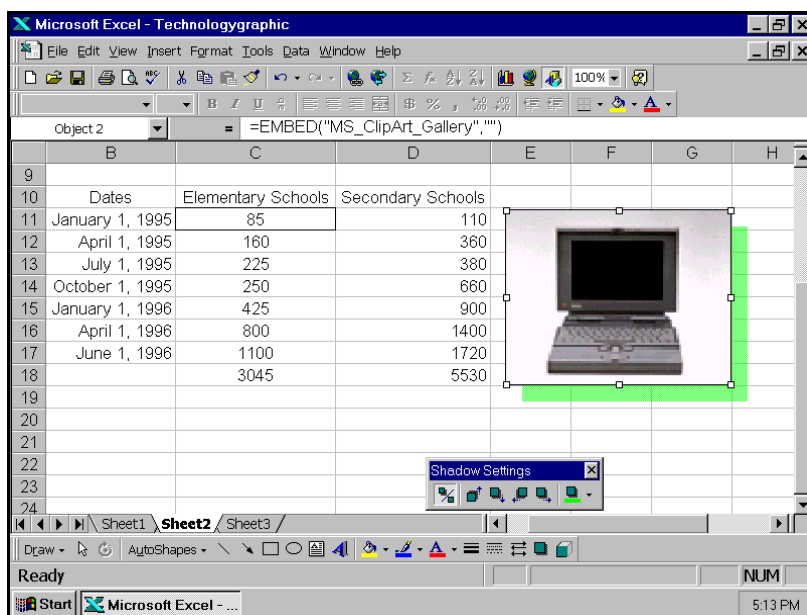


Creating do-it-yourself graphics

Now that you've tried your hand at preprogrammed Clip Art, you are ready to create and insert a do-it-yourself (DIY) graphic. The Drawing toolbar makes it easy to create original, one-of-a-kind graphics.

Attaching the Drawing toolbar

1. Using the Technology worksheet from the last exercise, click **Clip Art**.
2. Right-click a blank area (to the right of the **Help** button) on the menu bar, and then click **Drawing**.
3. Click the graphic you have just inserted, and then click **Shadow** on the Drawing toolbar.
4. Click **Shadow Style 6** to place a shadow behind the graphic.
5. Click **Shadow** again, and click **Shadow Settings**.
6. On the **Shadow Settings**, click the arrow to the right of **Shadow Color (Custom)**.
7. Click **Bright Green**.
8. Click **OK**.
9. Under **Shadow Settings**, click **Nudge Shadow Down** four times, and click **Nudge Shadow Right** four times.
10. Under **Shadow Settings**, click the arrow to the right of **Shadow Color**.
11. Click **Semitransparent Shadow**.
12. Save your chart.



If you print your worksheet in color, your chart and information may look and present better than in black-and-white. If you can print overheads directly from your printer, you have just created eye-catching materials for your next presentation.

Using WordArt

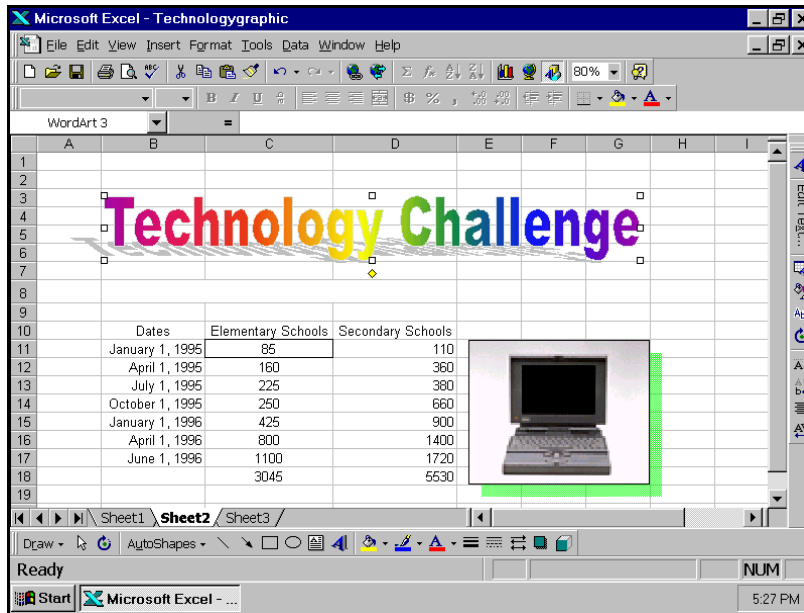
Excel has a button on the Drawing toolbar for you to create WordArt. WordArt bends, stretches, and twists words to create one-of-a-kind titles for your worksheets.

Applying WordArt techniques

1. Using the Technology workbook, select the words *Technology Challenge*, and press DELETE.
2. Click the row 1 header, and select seven rows.
3. On the **Insert** menu, click **Rows**, and seven new rows will be inserted.
4. On the **Insert** menu, position the pointer on **Picture**, and click **WordArt**.
5. Click the **Multicolor WordArt** in the fourth column.
6. Type *Technology Challenge*.
7. Click **OK**.
8. Click the **Size** dialog box, and type 32.
9. Click **OK**.
10. On the **View** menu, click **Zoom**, and click **75%**.
11. Click **OK**.

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12. Click the words *Technology Challenge*, and center the title horizontally and vertically, from the top of the chart to row 7.
13. Save the worksheet.



How you can use what you learned

Everyone understands the power of pictures to explain data. When you add even one illustration, graphic, or chart to your document, it comes alive. Color draws attention to your worksheets or charts. You can use the power of the Chart Wizard, and have the fun of adding Clip Art.

Using Excel 97 you can add depth, interest, and clarity to charts, and with the Chart Wizard you can easily add color, pictures, and WordArt.

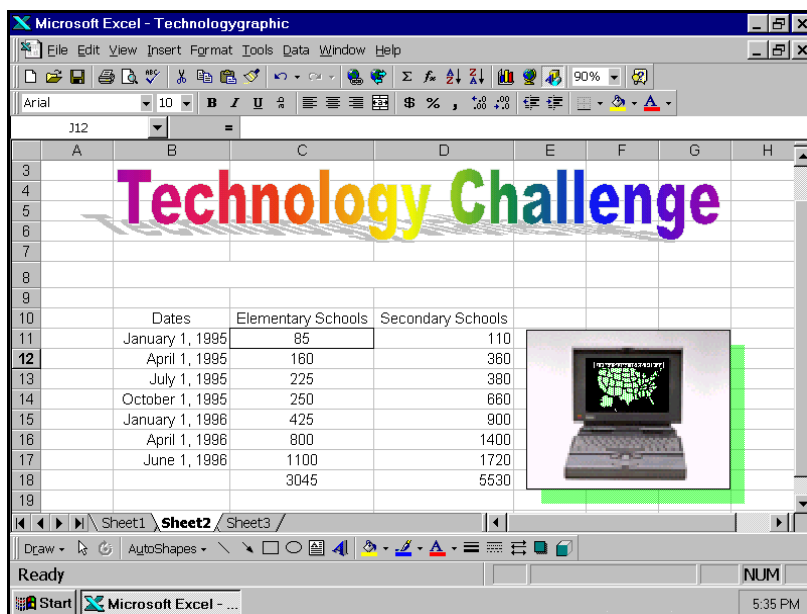
Extensions

Adding maps

You have added and changed the view of your graph. Now it is time to modify your worksheets even more by adding a map to the Clip Art you already inserted.

Adding a map to your worksheet

1. Using the Technology worksheet from the previous lesson, on the **Insert** menu, click **Map**.
2. Position the pointer, and click and drag inside the picture of the computer screen as shown in the following illustration.
3. Click **United States (AK & HI Inset)**.
4. Save your report.



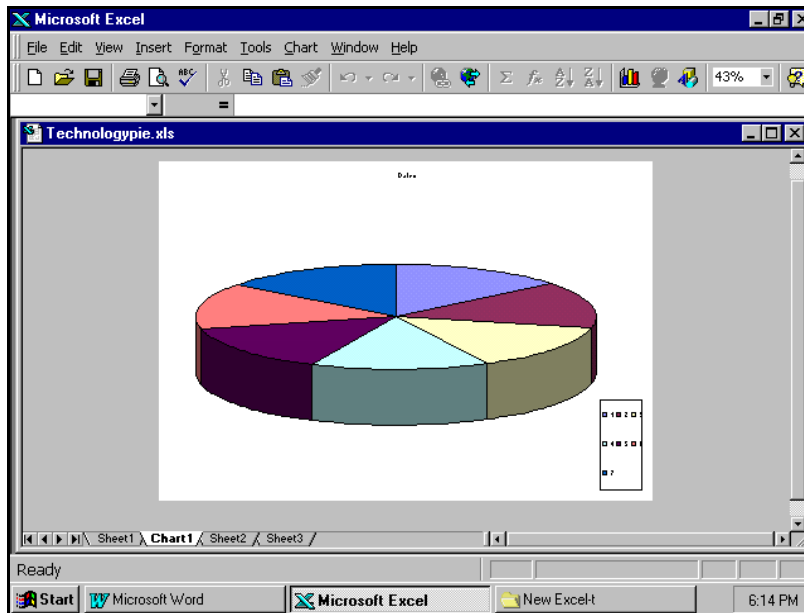
Viewing data with pie charts

Pie charts are easy to understand, and with Excel 97 and they are easy to make.

Creating pie charts

Visually presenting data with Excel 97 pie charts

1. With the Technology workbook open, click cell B3, and then press SHIFT while you click B10.
2. Press CTRL while you click cell D3 and drag the pointer to select cells D3 through D10.
3. Click the **Chart Wizard** button.
4. Under **Chart type**, click **Pie**, and In **Chart sub-type**, click **Pie with a 3-D visual effect** (first row, second chart).
5. Click **Next**.
6. On the **Series** tab, click **Next**, and on the **Title** tab, click **Next**.
7. Click **As new sheet**.
8. Click **Finish**.



Modifying pie charts

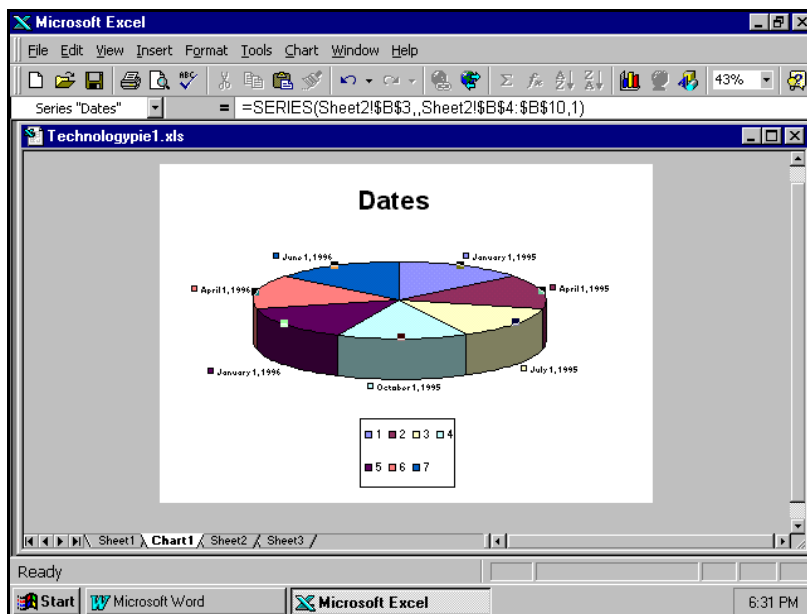
Emphasizing data and text in your pie charts

1. Click **Title**.
2. Right-click (chart) **Title** to open the **Format Chart Title** dialog box.
3. On the **Font** tab, click **Bold**, change the point size to 36, and then click **OK**.
4. Right-click the **Legend** box to open the **Format Legend** dialog box.
5. On the **Font** tab, click **Regular**, and then change the point size to 16.
6. On the **Placement** tab, click **Bottom**, and click **OK**.
7. Click the **Legend** box.
8. Click the size handle at the bottom, and drag it down to increase the length of the **Legend** box.
9. Click the size handle at the side of the **Legend** box, and drag it left to increase the width of the box.
10. Right-click inside **Pie** to open the **Format Data Series** dialog box.
11. On the **Data Labels** tab, click **Show value**.
12. Click **Show legend key next to label**, and click **OK**.
13. Right-click one of the **Data Labels** to open the **Format Data Labels** dialog box.
14. On the **Font** tab, click **Regular**, click **14**, and click **OK**.

Note

If your chart does not have a title, start with step 4, or go back to the Chart Wizard and add a title.

Your chart should match the following example:



Summarizing what you learned

In this chapter you have explored and practiced:

- Creating graphs with worksheet data.
- Modifying a standard graph.
- Creating and inserting WordArt into your worksheet.
- Creating do-it-yourself (DIY) graphics.
- Inserting maps.
- Using pie charts.